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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/583,863

12/01/2006

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EXAMINER

AFZALI, SARANG

ART UNIT

PAPER NUMBER

3726

MAIL DATE

DELIVERY MODE

12/24/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/583,863	Applicant(s) SAUER ET AL.	
	Examiner SARANG AFZALI	Art Unit 3726	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20080903</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed on 9/03/2008 has been fully considered and made of record.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4 rejected under 35 U.S.C. 103(a) as being unpatentable over Yamashita et al. (JP 10122339 A) in view of Terada et al. (US 5,48,340).

As applied to claim 1, Yamashita et al. teach a plastic-sheathed roller comprising a wheel (Figs. 1 & 2) comprising an inner ring (20), and an outer ring (21) that are connected through radially oriented ribs (23) arranged spaced apart on a periphery and through a central web (22) , said wheel being mounted for rotating through a rolling bearing (13) on a carrier element (14), while being supported through a running surface on a belt of the belt drive and injection gates (25) for injection molding being arranged distributed on a lateral surface, wherein the injection gates are spaced apart angularly from one another .

Yamashita et al. do not explicitly teach the arrangement of injection gates spaced apart non-uniformly from one another.

Tereda et al. teach an injection molded cylindrical body out of a synthetic resin wherein (Fig. 3, col. 4, lines) a plurality of gates (2a & 2b) and a reservoir (3) are arranged on a lateral surface and spaced apart angularly non-uniformly from one another in such as way that a little temperature drop takes place in the minor region d2 and no weld forms in the major region d1 resulting in a forming of a stronger molded part (col. 4, lines 34-67).

It would have been obvious to one of ordinary skill in the art at the time of invention to have provided Yamashita et al. with locating injection gates/reservoir in an arrangement such as one taught by Tereda et al. in order to produce a belt pulley with dimensional accuracy including a more strongly formed and more accurate circular peripheral surface/running face part with no weak sections.

Note that Yamashita et al. teach a well known injection molding method to produce a roller assembly including a resin molded belt pulley on a roller bearing by using injection gates arranged distributed on a lateral surface spaced apart angularly at substantially equal intervals. Yamashita et al. is concerned with the dimensional accuracy of the formed part in particular the perfect roundness of the outer circumference of the resin formed pulley resulting in a less noise due to vibration.

Tereda et al. teach a well known injection molding method to produce a cylindrical body by using injection gates arranged distributed on a lateral surface spaced apart angularly at non-uniform intervals that would result in a uniformly and accurately formed molded part. Tereda et al. is also concerned with using as little number of

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injection gates as possible that would result in less weld marks in order to provide a strong and more uniformly/accurately molded part (paragraph bridging cols. 1 & 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to try choosing from a finite number of identified, predictable solutions, with reasonable expectation of success.

As applied to claims 2-4, Yamashita et al. teach a plastic sheathed roller, wherein a rolling-bearing outer ring is injection-coated, on an outer surface and limited at both front ends, through the inner ring of the wheel (Figs. 1 & 2) and that the injection gates (25, Fig.1) are arranged spaced apart along a circle concentric to the axis. Terada et al. also teach that injection gates (2a & 2b, Fig. 7) are arranged spaced apart along a circle concentric to the axis.

Response to Arguments

4. Applicant's arguments, see "Remarks (pages 1 & 2), filed 9/3/2008, with respect to the rejection(s) of claim(s) 1-4 under 35 USC 103(a) unpatentable over Tanaka et al. in view of Sakamaki have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made under 35 USC 103(a) unpatentable over Yamashita et al. (JP 10122339A) in view of Terada et al. (US 5,948,340).

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5. The amendment to the specification dated 9/3/2008 is acknowledged and as such the objection to the specification for informalities is withdrawn.
6. The filing of the IDS on 9/3/2008 is acknowledged.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SARANG AFZALI whose telephone number is (571)272-8412. The examiner can normally be reached on 7:00-3:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on 571-272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sarang Afzali/
Examiner, Art Unit 3726
12/22/2008

/DAVID P. BRYANT/
Supervisory Patent Examiner, Art Unit 3726